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ABSTRACT

This paper suggests that traditional syntax describes a sentence's syntactic structure, and that verb valence theory describes a sentence's semantic structure. According to this theory, a verb has a certain valence, or power to attract a certain number of "adjuncts." It is further shown that a given semantic structure can be converted into different syntactic structures in different languages. This theory can aid in second language teaching via a contrastive syntactic analysis. Most of the examples used are German and English. (AM)

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Contrastive Grammar and Verb Valence

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Though the term "verb valence" may be new to some of us, the concept itself is an old and familiar one. The "valence" of a verb is its power to attract--even to require--one or more elements to go with it. An obvious example is the verb to give, German geben. It has what we may call "valence 3": it attracts three nominal expressions with the syntactic functions subject, indirect object, and direct object. Ordinary transitive verbs have valence 2: they require a subject and a direct object. The German verb wohnen also has valence 2, though in a different way: it requires a subject and an expression of place, as in Mein Bruder wohnt in Hamburg. Verbs like to sleep, German schlafen, have valence 1: they require only a subject. And, at least in terms of meaning, there are also verbs with valence 0, such as It's raining, German Es regnet. Here English and German whimsically require a dummy syntactic subject, though it really has nothing to do with the verb. Other languages behave more sensibly. Italian says simply Piove. Spanish says simply Llueve.

Because these accompanying elements are required to "complete" or "ergänzen" the meaning of the verb, they are commonly called COMPLEMENTS, German ERGÄNZUNGEN. They contrast with those elements which are not required by the verb but may be added optionally--the kinds of elements that are called in German "freie Angaben." Consider the sentence Grossvater schläft jetzt fest in der Hängematte. The valence 1 verb is schlafen, and its single complement is Grossvater. The remaining three elements are "freie Angaben": jetzt as an expression of time, fest as an expression of manner, and in der Hängematte as an expression of place. English has as yet no really good term for "freie Angaben." For want of a better term, I shall call them ADJUNCTS, i.e. they are optionally "adjoined" to the sentence.

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Thus far the notion "verb valence" seems harmless enough, even quite unoriginal. But if we pursue it to its logical conclusion, it leads to a view of sentence structure that is very different from the traditional one. For some 2500 years now--from Aristotle to Chomsky--linguists have told us that simple sentences have a bipartite structure. As shown in item (1) on the handout, a sentence consists of a Noun Phrase which functions as Subject, and a Verb Phrase which functions as Predicate. The Verb Phrase may then consist simply of a Verb, or of a Verb and one or more Noun Phrases functioning as Objects, and so on. But the initial structure is bipartite: one part functioning as Subject, another part functioning as Predicate.

Verb valence theory takes a very different view. As shown in item (2) on the handout, the central element in any simple sentence is a Verbal expression of some sort. Then, depending on the valence of the Verbal expression, there may be one or more Complements, each of which stands in a meaningful relation to the Verbal expression.

Which of these views is "right"? I like to think that they are both "right," though in different ways. The traditional "subject/predicate" view is right for the SYNTACTIC STRUCTURE of simple sentences. The "verb valence" view is right for the SEMANTIC STRUCTURE of simple sentences.

An understanding of the distinction between semantic structure and syntactic structure is, I believe, crucial for foreign language teaching, for translation, and for linguistics in general. Consider with me one of our favorite problems in teaching German to speakers of English: a pair of sentences like English <u>The teacher likes the book</u>, German <u>Das Buch gefällt dem Lehrer</u>. These two sentences must share something in common, since otherwise we could not tell our students that they are somehow "the same," and we could not say that the one properly "translates" the other. Yet what is it that is "the same"? It is

obviously not their phonological structure, though that is beside the point here. It is also not their syntactic structure, because they are in effect mirror images of one another. Their "sameness" must lie in their semantic structure, in terms of verb valence theory. I have tried to diagram this sameness in item (3) on the handout. Much of this diagram will be incomprehensible at the moment. Please let me try to explain it.

First, why do I speak of "verbals" rather than of "verbs"? The reason is that many syntactic expressions consisting of be plus adjective are the semantic equivalents of syntactic verbs. German examples: behilflich sein, equivalent to helfen; gehorsam sein, equivalent to gehorchen; davon abhängig sein, equivalent to davon abhängen; jemandem für etwas dankbar sein, equivalent to jemandem für etwas danken; and so on and on. Rather than call verbs adjectives, or adjectives verbs, I shall call them all--semantically--"verbals." In the transition from semantic structure to syntactic structure, some verbals are converted into syntactic verbs, others are converted syntactically into be plus adjective.

Second, why do I add after the verbal to like, German gefallen, the notation "State"? The reason for this is that verbals fall more or less clearly into two semantic classes. Some verbals refer to an EVENT (German VORGANG). Example: "Er kauft ein Auto." Other verbals refer to a STATE (German ZUSTAND). Example: "Er besitzt ein Auto." If in German we ask: "Was ist geschehen?", we can answer "Er hat ein Auto gekauft" but hardly "Er hat ein Auto besessen." And in English if we ask: "What is he doing?", we can answer "He is buying an auto" but hardly "He is owning an auto."

Still more important for an understanding of the difference between syntactic structure and semantic structure are the terms written on the diagonal lines in item (3) on the handout: the terms "Experiencer" and "Patient."

These terms describe the SEMANTIC RELATIONS between each complement and the verbal. Though we still understand these semantic relations very imperfectly, let me start off with a relatively clear example.

Item (4) on the handout gives the semantic structure of English The man gives the boy the money, German Der Mann gibt dem Jungen das Geld. Let us call the semantic relation of man to give one of Agent; that of boy to give one of Beneficiary; and that of money to give one of Patient. (If you do not like these particular terms, use any others you want. All we need are labels to show that these three complements bear three different semantic relations to the verbal.)

This rather obvious example already brings some valuable dividends to us as teachers of German. These English and German sentences have the same basic semantic structure. They will differ syntactically only depending on how we assign the semantic features Topic (for what we are talking about) and Focus (for what we are concentrating on). English really has only two possibilities. If we make man the Topic and money the Focus, we get: "The man gives the boy THE MONEY." And if we make man again the Topic but boy the Focus, we get: "The man gives the money TO THE BOY." Because German has a better signaling system, it has many more possibilities. If we make Mann the Topic and Geld the Focus, we get: "Der Mann gibt dem Jungen DAS GELD." If we again make Mann the Topic but Junge the Focus, we get: "Der Mann gibt das Geld DEM JUNGEN." We can also make Junge the Topic and Geld the Focus; this gives "Dem Jungen gibt der Mann DAS GELD." (Awkward English translation: "As for the boy, the man gives him THE MONEY.") Or we can make Geld the Topic and Junge the Focus; this gives "Das Geld gibt der Mann DEM JUNGEN." (Awkward English translation: "As for the money, the man gives it TO THE BOY.")

In addition to Agent, Patient, and Beneficiary, there are a few other types of relations between a complement and a verbal. We find one of them in what can perhaps be called "experiential" verbals: those that deal with such experiences as seeing, hearing, tasting, touching, smelling, learning, knowing, liking, pleasing, wanting, etc. Consider item (5) on the handout. This gives the semantic structure of English The tourist sees the cathedral, German Der Tourist sieht den Dom. Here the relation of cathedral to the verbal is that of Patient. But what of the relation of tourist to the verbal? It is clearly not that of Agent, because the tourist does not really do anything. Instead, the tourist simply "experiences" the sensation of seeing. We may therefore say that the semantic relation is that of Experiencer. (Or choose any other term you want.)

Now we can go back to item (3) on the handout: English The teacher likes the book, German Das Buch gefällt dem Lehrer. Both sentences have the same semantic structure. In going from semantics to syntax, English makes the Experiencer the subject and the Patient the object: The teacher likes the book. German does the opposite: it makes the Patient the subject and the Experiencer the object, giving Das Buch gefällt dem Lehrer.

Items (6) and (7) on the handout show how English and German handle the valence 1 verbal be cold, German kalt sein. In item (6) the two languages agree. The semantic Patient becomes the syntactic subject: English The water is cold, German Das Wasser ist kalt. In item (7) the two languages disagree. In English the semantic Experiencer becomes the syntactic subject, giving I am cold. But in German the semantic Experiencer becomes a syntactic dative, giving Mir ist kalt--a type of sentence with no syntactic subject.

As these examples show, there is no one-to-one correspondence between semantic relations and syntactic functions, either within languages or across

languages. The one thing we can be reasonably sure of, in both English and German, is that a semantic Agent will be converted into a syntactic subject. For example, the semantic Agent man becomes the syntactic subject in The man gives the boy the money, German Der Mann gibt dem Jungen das Geld. (Of course, if we say this sentence in the passive, then the semantic Agent becomes what we also call the syntactic agent: The money is given to the boy BY THE MAN, German Das Geld wird dem Jungen VON DEM MANN gegeben.) But if a sentence has no semantic Agent, then some other element becomes the syntactic subject. The semantic Beneficiary is the syntactic subject in The boy gets the money, German Der Junge bekommt das Geld. The semantic Patient is the syntactic subject in German Das Buch gefällt dem Lehrer. And the semantic Experiencer is the syntactic subject in English I am cold.

Especially important for us, as teachers of German, are those cases where the conversion from semantic structure to syntactic structure is made one way in English but another way in German. I have already given a number of examples. Let me give one more. English and German agree in saying The man opens the door, German Der Mann öffnet die Tür. Here the semantic Agent man becomes the syntactic subject, and the semantic Patient door becomes the syntactic object. But what happens if we omit the semantic Agent? In English, the semantic Patient then becomes the syntactic subject: The door opens. German is more thorough. It makes the semantic Patient both the subject and the object, and says: Die Tür öffnet sich--with, of course, the usual syntactic rule which converts the object into a reflexive pronoun because it is semantically identical with the subject.

There are many other pairs of verbs which differ from English to German in just this same way, and somewhere our profession ought to have a handy list of at least the commonest ones. Here are a few examples. English I turn the wheel like German Ich drehe das Rad; but English The wheel turns unlike German Das Rad dreht sich. English I calm him down like German Ich beruhige ihn; but English He calms down unlike German Er beruhigt sich. English I move it like German Ich bewege es; but English It moves unlike German Es bewegt sich. And so on.

This brings us to the topic of reflexive pronouns generally. In Ich wasche das Kind, ich is the Agent and das Kind is the Patient. In Das Kind wäscht sich, das Kind is both Agent and Patient, and we again get the syntactic rule which converts an object into a reflexive pronoun because it is semantically identical with the subject. That is to say, the sich waschen of this example is not a "reflexive verb"; it is merely the reflexive use of a perfectly ordinary transitive verb. German does, however, have some genuinely "reflexive" verbs such as sich erkälten, sich entschliessen, sich betrinken, etc. (Again, we ought to have somewhere a handy list of at least the commonest verbs of this type.) Beside Er erkältet sich there is no *Ich erkälte ihn; beside Er entschliesst sich there is no *Ich entschliesse ihn (though sometimes we wish there were); and so on. How should we interpret such verbs semantically? Because the reflexive object is semantically vacuous, I would like to suggest that it represents nothing at all in the semantic structure--just as the es of Es regnet represents nothing at all in the semantic structure. We can comfort our students by reminding them that English also has at least a few genuinely reflexive verbs. One example is the verb to perjure. Beside He perjures himself there is no *I perjure him.

There is obviously much more that could--and should--be said about "verb valence." The term itself was first used by the French linguist Lucien Tesnière in his 1953 Esquisse d'une syntaxe structurale. Curiously, American linguists have paid little attention to it. But in Europe, and especially in Germany, it has received a great deal of attention. At the end of the handout I have listed two works which deal extensively with it, and which also contain many useful bibliographical items. It might interest you to know that the impetus which led to the Helbig-Schenkel Wörterbuch zur Valenz und Distribution deutscher Verben was a pedagogical one: that of teaching German to speakers of other languages. I might also add that verb valence theory is still so new that everyone has his own version of it. The version that I have presented to you is strongly influenced by the final item on the handout: Wallace L. Chafe's Meaning and the Structure of Language.

I myself find verb valence theory exciting for two reasons. First, it helps me to understand better the nature of human language, particularly the distinction between semantic structure and syntactic structure. Second, it promises to be useful not only in teaching German to speakers of English and vice versa, but for contrastive linguistics generally. Let me conclude my remarks by giving two examples.

Item (7) on the handout gives the semantic structure of sentences in which be cold as a "valence 1" verbal stands in relation with the complement I as Experiencer. Different languages convert this common semantic structure into a fascinating number of different syntactic structures. English says I am cold. German says Mir ist kalt (literally 'To-me is cold'). French says J'ai froid (literally 'I have cold'). Spanish says Tengo frío (again 'I have cold'). Dutch says Ik heb het koud (literally 'I have it cold').

Item (8) on the handout gives the semantic structure of sentences in which be cold is used with no complement at all, i.e. as a "valence 0" verbal. English, German, and Dutch stubbornly insist on inserting a dummy syntactic subject: English It is cold, German Es ist kalt, Dutch Het is koud. French does the same, but instead of the verb be it uses a verb which otherwise means 'to make': Il fait froid (literally 'It makes cold'). Italian and Spanish are broadminded enough not to insist on a dummy subject, but they also use a verb which otherwise means 'to make': Italian Fa freddo (literally 'Makes cold'), Spanish Hace frfo (also 'Makes cold'). If I knew more languages, I could give you more examples of how a single semantic structure is converted into many different syntactic structures.

William G. Moulton, "Contrastive Grammar and Verb Valence"

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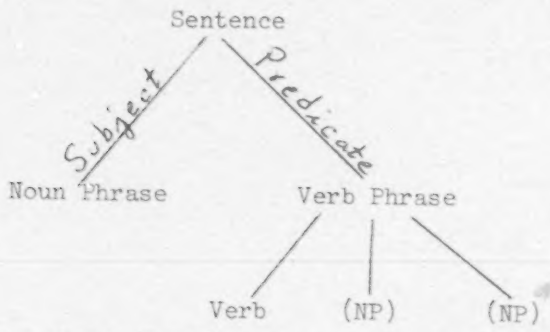

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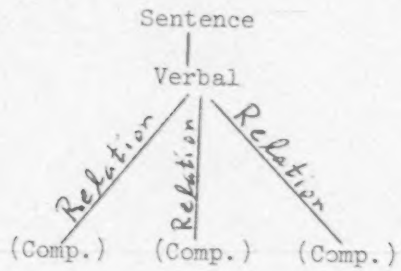

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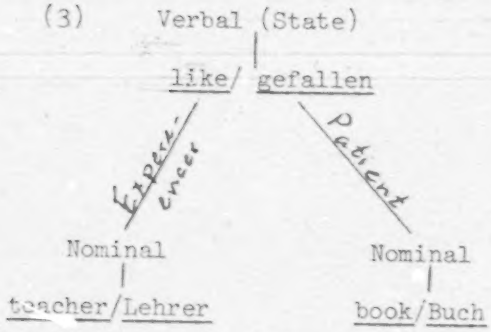

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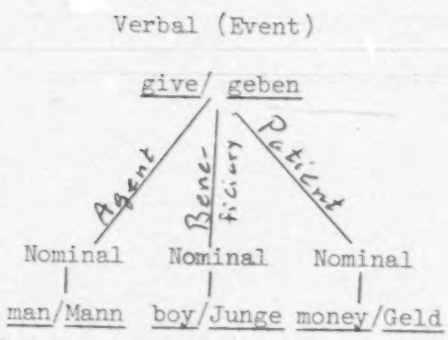

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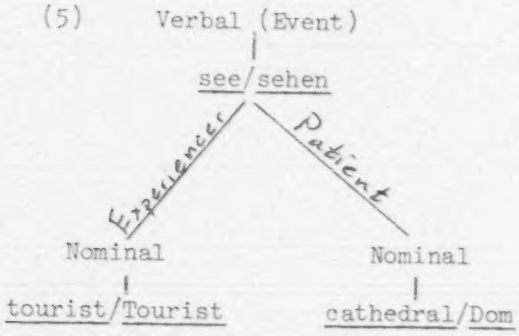

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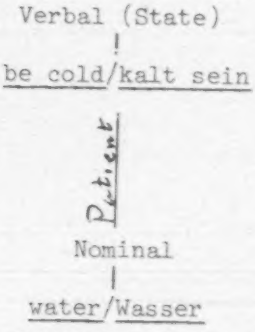

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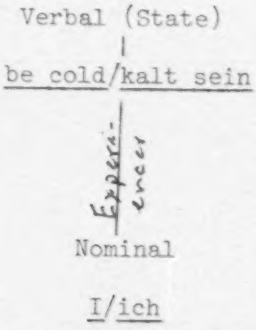

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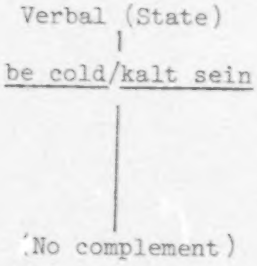

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